

Title (en)

THERMAL TREATMENT PROCESS OF AN AMORPHOUS ALLOY DIE CASTING

Title (de)

WÄRMEBEHANDLUNGSVERFAHREN FÜR EINEN DRUCKGUSS AUS EINER AMORPHEN LEGIERUNG

Title (fr)

TRAITEMENT THERMIQUE D'UNE PIÈCE DE COULÉE EN ALLIAGE AMORPHE

Publication

**EP 2565289 A1 20130306 (EN)**

Application

**EP 11811855 A 20110728**

Priority

- CN 201010244468 A 20100729
- CN 2011077762 W 20110728

Abstract (en)

A heat treatment process for an amorphous alloy die cast comprises: the amorphous alloy die cast is subjected to an aging treatment at a temperature of 0.5-0.6 T<sub>g</sub>, for a time of 10 minutes to 24 hours. The amorphous alloy die cast comprises Zr, and is represented by a formula of (Zr<sub>1-x</sub> Ti<sub>x</sub>)<sub>a</sub> (Cu<sub>1-y</sub> Ni<sub>y</sub>)<sub>b</sub> Al<sub>c</sub> M<sub>d</sub>, in which M is selected from the group consisting of: Be, Y, Sc, La, and combinations thereof, 38#<sub>a</sub>#<sub>a</sub>=65, 0#<sub>x</sub>#<sub>a</sub>=0.45, 0#<sub>y</sub>#<sub>a</sub>=0.75, 20#<sub>b</sub>#<sub>a</sub>=40, 0#<sub>c</sub>#<sub>a</sub>=15, 0#<sub>d</sub>#<sub>a</sub>=30, and the sum of a, b, c, and d in atomic percentages equals to 100.

IPC 8 full level

**C22C 45/00** (2006.01); **B22D 18/00** (2006.01); **C22F 1/00** (2006.01)

CPC (source: EP US)

**B22D 17/00** (2013.01 - EP US); **C22C 1/11** (2023.01 - EP US); **C22C 16/00** (2013.01 - EP US); **C22C 45/10** (2013.01 - EP US); **C22F 1/18** (2013.01 - EP US)

Cited by

CN109609880A; WO2023011980A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**US 2012222785 A1 20120906**; CN 102345082 A 20120208; CN 102345082 B 20170222; EP 2565289 A1 20130306; EP 2565289 A4 20170517; EP 2565289 B1 20180718; WO 2012013154 A1 20120202

DOCDB simple family (application)

**US 201213431159 A 20120327**; CN 201010244468 A 20100729; CN 2011077762 W 20110728; EP 11811855 A 20110728